

CLAIMS

1. A method comprising:

obtaining reference data that characterizes a media stream,

obtaining altered data that characterizes said media stream after said media stream has traversed a channel that includes a network; and

determining a quality of service of said channel on the basis of a comparison of said reference data and said altered data.

2. The method of claim **1**, wherein

 said reference data characterizes a feature of said media stream; and

 said altered data characterizes a feature of said media stream after said media stream has traversed said channel.

3. The method of claim **1**, wherein obtaining at least one of said reference and said altered data comprises applying a Sarnoff JND algorithm or an ANSI T1.801.03 algorithm.

4. The method of claim **2**, wherein determining a quality of service of said channel comprises comparing said first

reference data and said altered data.

5. The method of claim 1, further comprising:

obtaining network statistics associated with
transmission on said channel; and

correlating said network statistics with said altered
data.

6. The method of claim 5, further comprising selecting said
network statistics from the group consisting of jitter, packet
loss, and packet latency.

7. The method of claim 1, further comprising selecting said
channel to include:

an encoder for creating an encoded representation of
said media stream;

a decoder for recovering said media stream from said
encoded representation; and

a computer network between said encoder and said
decoder.

8. The method of claim 1, wherein obtaining said reference data
comprises:

passing said media stream through an encoder to generate an encoded signal;

passing said encoded signal through a decoder to generate a decoded media stream; and

passing said decoded media stream through a feature extractor to extract said reference data.

9. A system comprising:

a first feature extractor for generating reference data characterizing a media stream;

a second feature extractor for generating altered data characterizing said media stream after said media stream has traversed a channel that includes a network; and

an analyzer for comparing said reference data and said altered data to generate a transmission metric indicative of a quality of service.

10. The system of claim **9**, further comprising a correlator in communication with said analyzer, said correlator being configured to correlate network statistics associated with said channel with said transmission metric.

11. The system of claim 10, further comprising a network monitor in communication with said correlator, said network monitor being configured to collect said network statistics.

12. The system of claim 10, wherein said correlator is configured to correlate statistics selected from the group consisting of: jitter, packet loss, and packet latency.

13. The system of claim 9, wherein said first and second feature extractors are configured to extract media features using an algorithm selected from the group consisting of: the Sarnoff JND algorithm and the ANSI T1.801.03 algorithm

14. A computer-readable medium having software encoded thereon, said software comprising instructions for:

obtaining reference data that characterizes a media stream,

obtaining altered data that characterizes said media stream after said media stream has traversed a channel that includes a network; and

determining a quality of service of said channel on the basis of a comparison of said reference data and said altered data.

15. The computer-readable medium of claim 14, wherein

said instructions for obtaining reference data include
 instructions for generating reference data
 characterizing a feature of said media stream; and

 said instructions for obtaining altered data comprise
 instructions for generating altered data that
 characterizes a feature of said media stream after said
 media stream has traversed said channel.

16. The computer-readable medium of claim **14**, wherein said instructions for obtaining at least one of said reference and said altered data comprise instructions for applying a Sarnoff JND algorithm or an ANSI T1.801.03 algorithm.
17. The computer-readable medium of claim **15**, wherein said instructions for determining a quality of service of said channel comprise instructions for comparing said first reference data and said altered data.
18. The computer-readable medium of claim **14**, wherein said software further comprises instructions for:

 obtaining network statistics associated with
 transmission on said channel; and

 correlating said network statistics with said altered data.
19. The computer-readable medium of claim **18**, wherein said

software further comprises instructions for selecting said network statistics from the group consisting of jitter, packet loss, and packet latency.

20. The computer-readable medium of claim 14, wherein said software further comprises instructions for selecting said channel to include:

an encoder for creating an encoded representation of said media stream;

a decoder for recovering said media stream from said encoded representation; and

a computer network between said encoder and said decoder.

21. The computer-readable medium of claim 14, wherein said instructions for obtaining said reference data comprise instructions for:

passing said media stream through an encoder to generate an encoded signal;

passing said encoded signal through a decoder to generate a decoded media stream; and

passing said decoded media stream through a feature extractor to extract said reference data.